Self-Assessments

on Concept (1.3)

Self-Assessment 10 On Lesson 1

1 (A) Put (✓) or (✗) :

1. Eyes send information through nerves to the brain for processing them. (   )
2. The membrane that presents at the back of cat's eyes depends on sound to detect the prey location. (   )
3. Fishing cat has excellent night vision better than human. (   )

(B) Give a reason for the following :

The fishing cat's eyes pupils open widly at the low-light places.

....

2 (A) Choose from column (B) what suits it in column (A) :

(A)	(B)
1. Fishing cat 2. Human	a. depends on touch to hunt. b. has no mirror-like membrane at the back of the eye. c. has a mirror-like membrane at the back of the eye.

1. .... 2. ....

(B) Give a reason for the following :

We can see the moon shining although it is not a source of light.

....

3 Choose the correct answer :

1. If the human eyes contain a mirror-like membrane like which is found in fishing cat's eyes, then all the following statements are correct, <u>except</u> that human eyes ....
   a. seem to glow at night.
   b. have excellent night vision.
   c. don't need night vision goggles.
   d. need a strong source of light to can see at night.
2. In the low-light places, cat's eyes pupils open .... human's eyes pupils.
   a. equal to b. smaller than c. narrower than d. wider than
3. Which of the following animals has the ability to fly but can't see clearly at night ? ....
   a. Fishing cat. b. Snake. c. Bat. d. Fennec fox.

4. All the following have structural adaptation in their eyes, except ....
a. owls.
b. fishing cats.
c. panther chameleons.
d. bats.

Self-Assessment 11 till Lesson 2

1 (A) Put (✓) or (✗) :

1. You can see a green ball inside a transparent glass box. ( )
2. Opaque objects allow light to pass through and we can see objects through them. ( )
3. In a completely dark room, we can see the transparent objects but opaque objects cannot be seen. ( )

(B) Give a reason for the following :

You can see clearly through air.

....

2 (A) Choose from column (B) what suits it in column (A) :

(A)	(B)
1. Water	a. It is an opaque material, that reflects light in different directions.
2. Glass	b. It is a source of light energy.
3. Wood	c. It is a transparent material that is used in making windows.
	d. It is a transparent liquid material.

1. .... 2. .... 3. ....

(B) Cross out the odd word :

1. Mirror – Cloth – Paper – Wood sheet. (.............)
2. Wood door – Book – Wall – Glass cup. (.............)

3 Look at the opposite figure, then answer the questions below :

1. Can you see the light from the other side of cup ?

....

2. From this activity, we can conclude that ....
a. water and glass are opaque objects.
b. water and glass are transparent objects.
c. water is an opaque object, while glass is a transparent one.
d. glass is an opaque object, while water is a transparent one.

Self-Assessment 12 till Lesson 3

1 **(A) Put (✓) or (✗) :**

1. Firefly beetles form different flash patterns by using their legs. ( )
2. Speaking is one of the ways to communicate with people. ( )
3. Light energy not used by humans or firefly beetles for communication. ( )

(B) Give a reason for the following :

The wings of firefly beetles play an important role in the communication between them.

....

....

---

2 **(A) Correct the underlined words :**

1. Changing the flash patterns of firefly beetles is considered as a structural adaptation. (.....................)
2. A cell phone is a device that is used in communication between animals. (.....................)
3. Reading is a type of communication that depends on the sense of taste. (.....................)

(B) How can firefly insects produce light to communicate with each other ?

....

....

---

3 **Choose the correct answer :**

1. .... is a type of communication which is used by humans only.

   a. Sound b. Light c. Echolocation d. Cell phone

2. Which of the following is not a reason for firefly beetles produce a flash light ? ....

   a. To attract a mate. b. For communication.
   c. To warn off from predators. d. To hear in the dark.

3. .... is considered a type of communication used by animals only.

   a. Writing b. Echolocation c. Reading d. Cell phone

4. A firefly is not a bird, but it is a type of ....

   a. amphibians. b. lizards. c. beetles. d. reptiles.

Self-Assessment 13 till Lesson 4

1 (A) Choose the correct answer :

1. All of the following use light energy to send codes, except ....
   a. lighthouses.
   b. traffic lights.
   c. musical instruments.
   d. firefly beetles.

2. Some living organisms can use light energy in communication such as ....
   a. humans only.
   b. firefly beetles only.
   c. humans and firefly beetles.
   d. bats and firefly beetles.

3. The .... is the only living organism that can use language and speech to communicate with each other.
   a. whale
   b. owl
   c. firefly beetles
   d. human

(B) Give a reason for the following :

In cats' eyes the mirror-like membrane cannot make its function in a completely dark room.

....

2 (A) Put (✓) or (✗) :

1. People who are lost in the desert can use mirrors to attract the attention of rescue helicopters.. ( )
2. Writing is a type of communication that is used by human only. ( )
3. Musical instruments cannot be used to send codes for communication. ( )

(B) What happens if ... ?

The structure of fishing cat's eyes are like that of human's eyes.

....

3 Complete the following table using the words below :

(communicate - eyes - flash patterns - light reflection - bodies - hunt - chemical reaction - mirror - like membrane)

Fishing cats	Firefly beetles
1. There is a special structure known as a .... presents at the back of their	1. They produce light, due to the occurrence of a .... inside their ....
2. The special structure of sight causes .... to collect more light, and helps them to .... at night.	2. They use their wings to form different .... that help them to .... at night.

Model Exam 
on Concept (1.3)

Total mark
_____
15

1 (A) Choose the correct answer : *(5 marks)*

1. .... can communicate by displaying light.
   a. All animals   b. All plants
   c. All plants and animals   d. Humans and some animals
2. Each of human and fishing cat, ...
   a. has a mirror-like membrane in their eyes.
   b. has an excellent night vision.
   c. has two eyes adapted for vision.
   d. becomes more active at night.
3. Which of the following communications depends on the sense of sight only ? ....
   a. Watching TV.   b. Flashing lights of fireflies.
   c. Echolocation.   d. Using the cell phone.
4. Painted surface .... the incoming light rays.
   a. absorbs only   b. reflects only
   c. absorbs and reflects   d. allows to pass

(B) Give a reason for the following :

You can see an object placed behined a glass cup.

....

....

---

2 (A) Put (✓) or (✗) : *(5 marks)*

1. Transparent objects don't allow light to pass through them. (   )
2. Human has huge eyes like fishing cat to gather and reflect any light available. (   )
3. Nocturnal animals have bigger eyes than humans. (   )
4. Human can see in dim light as well as in bright light if his eyes contain a mirror-like membrane. (   )

(B) What happens if ... ?

Light falls on a rough surface.

....

3 (A) Complete the following sentences : *(5 marks)*

1. The .... is the main control center in humans and animals bodies, while .... are considered the organ of sight in their bodies.
2. Fishing cats depend on the sense of .... in weak light levels, while in complete darkness they depend on the senses of .... and ....
3. In the eyes of .... animals, there is a mirror-like membrane that .... light.
4. Paper and a piece of cloth are considered .... surfaces that diffuse or scatter .... energy.

(B) Cross out the odd word :

1. Fire – Candle – The moon. (........................)
2. Flashlight – The moon – Mirror. (........................)

Model Exam 2
on Concept (1.3)

Total mark
15

1 (A) Choose the correct answer : *(5 marks)*

1. The mirror-like membrane of the fishing cat is present ....
   a. inside the lungs. b. at the back of the eye.
   c. inside the stomach. d. at the back of the brain.
2. Light travels in .... lines in the form of waves.
   a. circular b. curved c. zigzag d. straight
3. Reading and writing are common types of communication in .... world.
   a. plants b. humans c. animals d. insects
4. Sense organs collect information and send signals to .... for processing and understanding,
   a. legs b. stomach c. brain d. hands

(B) Give a reason for the following :

The fishing cat's eyes seem to glow in the dark.

....

---

2 (A) Complete the following sentences : *(5 marks)*

1. Human can see objects which give off their own light or objects which .... light.
2. Rough materials reflect light .... than smooth materials.
3. A group of firefly beetles can change their own .... to match the flash pattern of another group to communicate.
4. Ears of humans detect .... energy, while their eyes detect .... energy.

(B) What happens if ... ?

The mirror-like membrane in the fishing cat's eyes is not present.

....

---

3 (A) Put (✓) or (✗) : *(5 marks)*

1. Cats have excellent night vision, while humans are not. ( )
2. Mirror reflects most of incoming light rays that fall on it. ( )
3. Different languages have similar codes. ( )
4. A cell phone is a device that is used in communication between animals. ( )

(B) Write the scientific term of each of the following :

1. Materials that allow light to pass through. (....................)
2. The sense organ of light (....................)

Self-Assessments

on Concept (2.1)

Self-Assessment 14 On Lesson 1

1 **(A) Put (✓) or (✗) :**

1. The engine of a normal truck is the same engine of a rocket. (   )
2. Engineers use the same idea of rocket design in stopping the Shockwave truck. (   )
3. You need energy to make a force to move a chair from one place to another. (   )

(B) Give a reason for the following :

By increasing the number of fire extinguishers, the distance that the cart moves will increase.

....

....

2 **(A) Choose from column (B) what suits it in column (A) :**

(A)	(B)
1. Normal engine 2. Jet engine 3. Parachute	a. is used in stopping both of the Shockwave truck and rockets. b. is used in moving a normal truck. c. is used to stop a normal truck. d. is used in moving the Shockwave truck.

1. .... 2. .... 3. ....

(B) Which is faster, a normal truck or the Shockwave truck ? (Give a reason for your answer).

....

....

3 **This picture represents one of the most powerful and fastest trucks in the world :**

1. What is the name of this truck ?

....

2. What happens if the three jet engines of this truck are replaced by the engine of a normal truck ?

....

....

Self-Assessment 15 till Lesson 2

1 (A) Choose the correct answer :

1. A book is placed on a table is affected by ....
   a. gravity pulling force only.
   b. table pushing force only.
   c. table pulling force and gravity pushing force.
   d. table pushing force and gravity pulling force.
2. When you sit on a chair which of the following sentences is correct ? ....
   a. gravity pulling you upward.
   b. gravity pulling you downward.
   c. chair pulling you upward.
   d. chair pushing you downward.
3. We can see all the following motions, except ....
   a. the rotation of Earth around the Sun.
   b. a person crossing the road.
   c. a person riding a bicycle.
   d. a person swimming in the sea.

(B) What happens if ... ?

The pulling force of one of the two teams in tug-of-war game becomes greater than the other team.

....

....

2 (A) Correct the underlined words :

1. To move up any object from the ground, the pulling force of your hand must be smaller than the pulling force of the gravity. (......................)
2. In tug-of-war game, the winner team is the team with the weaker force. (......................)
3. You can stop the ball that is thrown toward you by the pulling force of your hands against the ball movement. (......................)

(B) Give a reason for the following :

Parachutes are used in the Shockwave truck and rocket .

....

Revision

Concept 1.3
Light and Sight

1 Choose the correct answer:

1. ______ energy affects the sensory receptors in the eyes, causing vision.
   a. Sound b. Kinetic c. Light d. Magnetic
2. The organ responsible for the sense of sight is the ______ .
   a. ears b. tongue c. nose d. eyes
3. Each of the following is considered a source of light, except ______ .
   a. fire b. the Sun c. the lamp d. the eye
4. Which of the following is a source of light?
   a. The moon b. Our eyes c. Fire d. Mirror
5. The eyes of nocturnal animals are ______ the human eye.
   a. smaller than b. bigger than c. the same as d. narrower than
6. Both fishing cats and owls ______ .
   a. can swim b. are nocturnal animals
   c. can fly d. can rotate their eyes
7. Humans have ______ eyes than nocturnal animals.
   a. bigger b. smaller c. stronger d. sharper
8. The pupils of nocturnal animals open ______ humans' pupils.
   a. wider than b. similar to c. narrower than d. shorter than
9. The eyes of ______ glow in the dark.
   a. bats b. cats c. penguins d. snakes
10. What feature of light helps you see yourself in the mirror?
    a. Refraction b. Ray length c. Shortness d. Reflection
11. Light travels in ______ lines.
    a. curved b. straight c. zigzag d. circular
12. Which of the following material does not form a shadow when light falls on it?
    a. Wood b. Glass c. Carton d. Tree

13 Which of the following allows light to pass through it?
a. Rock b. The moon c. Wood d. Glass

14 A mirror makes the falling light rays ______ .
a. pass through it
b. reflect in different directions
c. reflect in the same direction
d. diffuse like that of rough surfaces

15 ______ is/are considered from transparent objects.
a. Metals b. Lenses c. Mirrors d. Wood

16 All the following are transparent materials, except ______ .
a. glass b. air c. paper d. lenses

17 All of the following materials are opaque, except ______ .
a. wood b. the human body c. water d. iron

18 When light falls on a dark surface, ______ .
a. the surface absorbs the light
b. light passes through it
c. the light is refracted
d. nothing happens

19 A firefly is not a bird, but it is a type of ______ .
a. amphibians b. lizards c. beetles d. reptiles

20 Changing the pattern of lighting up in a firefly is an example of ______ adaptation(s)
a. structural and behavioral
b. physical and behavioral
c. structural
d. behavioral

21 ______ produce a chemical reaction inside their bodies.
a. Butterflies
b. Fireflies
c. Houseflies
d. Owls

22 Raising your thumb up or lowering it down is a kind of ______ .
a. colors
b. codes
c. waves
d. lights

2 Complete the following sentences using the words between the brackets:

1 The eye pupils of owls open ______ than the eye pupils of humans. (narrower - wider)

2 ______ is from the sources of light. (The moon - Fire)

3 Air and water are ______ materials and you can see things through them. (transparent - opaque)

4 Smooth surfaces reflect light in ______ direction(s). (the same - different)

5 Light does not pass through ______ matter. (transparent - opaque)

6 ______ is from the opaque objects. (Carton - Glass)

7 When light is scattered from a surface in different directions, this surface is ______ . (rough - smooth)

8 The different languages are considered as ______ . (codes - lights)

3 Put (✓) or (✗):

1 Both humans and animals need a light source to see. ( )

2 The human eyes can see in the dark clearly. ( )

3 Humans can see in dim light better than in bright light. ( )

4 The moon is considered a light source. ( )

5 All nocturnal animals have excellent night vision. ( )

6 Nocturnal animals have eyes that are bigger than the human eyes. ( )

7 Some animals can see clearly at night, such as a wild cats. ( )

8 The fishing cat can't hunt in the dark. ( )

9 Cats have excellent night vision, while bats don't. ( )

10 Wood is a transparent object that allows light to pass through it. ( )

11 The wooden board reflects less light than the mirror. ( )

12 The opaque materials do not let the light pass through. ( )

13 Shadow is formed when light hits a transparent object. ( )

14 Polished surfaces, as mirrors, reflect light rays in the same direction. ( )

15 The light reflection depends on the smoothness of the objects' surface. ( )

16 If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ( )

17 A written language helps people communicate. ( )

18 Fireflies can communicate with each other using sound energy. ( )

19 Humans use light to communicate, such as using traffic lights. ( )

20 In order for the code to be translated, the brain must identify it. ( )

21 Red and green traffic lights are codes. ( )

4 Write the scientific term:

1 It's the visible form of energy that travels in the form of waves.

2 It's the organ that is affected by light and is responsible for sight.

3 They're objects that emit their own light.

4 It's a tool used by people, and it works as the eyes of fishing cats at night.

5 It's a type of wild cat that has eyes that glow at night.

6 They're materials that allow light to pass through.

7 They're materials that don't allow light to pass through.

8 They are materials that reflect the light rays in one direction.

9 They are materials that diffuse light in different directions.

5 Cross out the odd word:

1 Lenses – Air – Brick – Water

2 Sun – Moon – Fire – Candle

3 Wood – Glass cup – Book – Wall

4 Paper – Wood – Cloth – Mirror

6 Classify the following materials into transparent and opaque materials:

1 A chair made of wood: ....

2 An aluminum pot: ....

3 Air: ....

4 Glasses of glass: ....

7 Classify the following materials into transparent and opaque materials:

(Rock – Glass – Window)

....

8 Classify the following materials into smooth and rough materials:

(Mirror - Cloth - Metal - Wood)

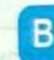
....

9 Choose from column (A) what suits it in column (B):

A

Column (A)	Column (B)
1 The Sun	a. reflect light rays in one direction.
2 Shadow	b. is formed when the light strikes a human body.
3 The moon	c. is a source of light.
4 Smooth surfaces	d. is shiny but is not considered a source of energy.

1 .... 2 ....  ....  ....



B

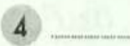
Column (A)	Column (B)
1 Sight	a. is the visible form of energy that is transmitted in the form of waves.
2 Light	b. is a structural adaptation in the eyes that provides some animals with better vision at night.
3 The mirror-like membrane	c. is the sense that helps us see.

1 ....  .... 3 ....



C

Column (A)	Column (B)
1 Rough surfaces	a. is a type of communication for humans only.
2 Light travels in	b. light up their wings to attract a mate.
3 Whatching TV	c. diffuse light in different directions.
4 Fireflies	d. straight lines.

1 ....  .... 3 ....  ....

10 Look at the path of the light rays in pictures (A) and (B).

- Determine which of the two objects is opaque and which is transparent.

(A): ....

(B): ....

A B

11 Which of the following surfaces represents the reflection of light rays from wood and what is the reason?

A B

....

12 Your friend wants to prevent the light from entering his room.

Suggest him some materials that he can use on the window to prevent the light from entering his room. ....

13 Give reasons for:

1. The moon is not considered a source of light.
2. A candle is considered a source of light.
3. Nocturnal animals can see better than humans at night.
4. A cat's eyes glow in the dark.
5. The eyes of humans do not glow like cats in the dark.
6. You can see an object placed behind a glass cup.
7. A shadow is formed when light falls on an opaque object.
8. None of the light energy passes through the opaque objects.

14 What happens if:

1. Light falls on a book?
2. Light falls on a rough surface?

Revision

Concept 2.1

Starting and Stopping

1 Choose the correct answer:

1. When an object is in motion, this means that its ______ changes.
   a. color b. shape c. size d. position

2. When you move something towards you, this represents ______ .
   a. pushing force b. light energy c. pulling force d. sound energy

3. When you sit on a chair, the force of gravity is ______ and holding you on the chair
   a. pulling you upward b. pulling you downward
   c. pushing you upward d. pushing you downward

4. Push or pull actions are considered types of ______ .
   a. forces b. devices c. energies d. adaptations

5. The force that pulls the objects down towards the center of the Earth is ______ force.
   a. gravity b. pushing c. air d. wind

6. The force that occurs when an object rubs against another object is called ______ force.
   a. pull b. push c. gravity d. friction

7. You can see the movement of all the following objects, except the movement of ______ .
   a. a flying airplane b. a running horse
   c. sea waves d. the planet Earth

8. The force that slows down (decreases) the object's speed is called ______.
   a. push b. gravity c. friction d. pull

9. ______ is the ability to do work.
   a. Energy b. Force c. Push d. Pull

10 All the following are examples of pulling force, except ________

a. pulling the rope
b. kicking a ball
c. opening the desk's drawer
d. lifting up your bag

11 When a body moves forward, the change that occurs is in ________.

a. the position of the body
b. the size of the body
c. the mass of the body
d. Earth's gravity

12 Objects need a force to move, this force is represented in ________.

a. pushing only
b. pulling only
c. pushing and pulling together
d. the Earth gravity only

13 When a ball stands on the ground without moving, the forces acting on it are ________.

a. unbalanced b. balanced c. pushing it up d. not equal

14 In the following figure, the body is under the effect of ________.

a. balanced forces and is moving to the right
b. forces and is moving to the left
c. unbalanced forces and is moving to the right
d. unbalanced forces and is moving to the left

15 The energy gained by a ball when it falls from above is ________ energy.

a. potential b. kinetic c. light d. chemical

2 Complete the following sentences using the words between the brackets:

1 The car slows down its speed when it runs out of fuel, as a result of ________. (gravity – friction)

2 The ________ forces makes the static object move. (balanced – unbalanced)

3 The force that pulls things down is ________. (friction – gravity)

4. When playing the tug-of-war game, if each team pulls the rope with equal force, the forces are ________ . (balanced - unbalanced)

5. To slow down the speed of a Shockwave truck, the drivers use ________ parachutes. (5 - 3)

3 Put (✓) or (✗):

1. Air resists the motion of a car. ( )
2. Gravitational force is an upward pulling force. ( )
3. When a pen falls from your hand, the acting force is gravity. ( )
4. When a static body is affected by balanced forces, the body moves. ( )
5. The seesaw moves up and down because the forces that act on it are unbalanced. ( )
6. When the position of the body changes from a fixed point, we can say that the body moves. ( )
7. The force that slows down or decreases the speed of an object is gravity. ( )
8. Gravity pulls objects towards the center of the Earth. ( )
9. When a car crashes into a wall, it will not stop. ( )
10. We eat food to gain energy. ( )
11. Unbalanced forces cause a change in the object's position. ( )

4 Write the scientific term:

1. It's the force that pulls objects towards the center of the Earth.
2. It is a push or pull that is applied to an object making change its position.
3. It's the force that arises when objects rub against each other.

5 Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1 Friction	a. is the ability to do work.
2 Motion	b. is the force that pulls things downwards.
3 Energy	c. is the change of an object's position.
4 Gravity	d. is a force that arises between the surfaces of two contacting bodies.

1 .... 2 .... 3 .... 4 ....

6 Look at the following figure, then answer the question below:

Original Point

A — 70 cm

B — 35 cm

- Which of these toy cars is affected by greater force? (Give reason for your answer.)

....

7 When you sit on the chair without moving:

- What is the name of the force that pulls you downward?

....

....

8 What happens if:

- A boy on a bike stops pedaling?

....

....



November Questions Bank



CONCEPT 1.3

Question 01 choose the corret answer

1. Light travels in .... lines in form of waves
   - (a) straight (b) curved (c) zigzag (d) circular
2. Which of the following organs are working together for seeing different objects?
   - (a) Nose and brain (b) Eyes and brain. (c) Ears and brain (d) Tongue and brain.
3. The organ that is responsible for the sense of sight is ....
   - (a) the ear (b) the tongue (c) the nose (d) the eye
4. All the following things are considered as light sources, except ....
   - (a) the Sun (b) fire (c) eyes (d) the light lamp
5. Which of the following is a source of light?
   - (a) the moon (b) our eyes (c) fire (d) mirror
6. All the following considered as a source of light except ....
   - (a) sun (b) candle (c) fire (d) moon
7. .... eye glows and it can see in the dark.
   - (a) Human (b) Penguin (c) Fishing Cat (d) Bull shark
8. .... energy affects the sensory receptors in the eye causing vision.
   - (a) Sound (b) Kinetic (c) Light (d) Magnetic
9. Humans have......... eyes than nocturnal animals.
   - (a) bigger (b) smaller (c) stronger (d) sharper
10. From transparent objects......................
    - (a) metals (b) lens (c) mirror (d) wood
11. All of the following are transparent objects, except ....
    - (a) glass (b) water (c) paper (d) air

12. All of the following are forms of codes, except ....

ⓐ thumb up ⓑ faces expressions. ⓒ writing ⓓ swimming

13. Sense organs collect information and send signals to .... for processing and understanding.

ⓐ hands ⓑ legs ⓒ brain ⓓ stomach

14. Reading and writing are common types of communication in .... world.

ⓐ humans ⓑ animals ⓒ birds ⓓ plants

15. Raising the thumb up or lowering it down is a type of. ....

ⓐ colors ⓑ codes ⓒ waves ⓓ lights

16. Metal and wood are .... materials.

ⓐ opaque ⓑ transparent ⓒ liquids ⓓ gaseous

17. Animals can communicate with each other through....................

ⓐ sound and light ⓑ eating ⓒ writing ⓓ reading

18. A firefly is not a bird, but it is a type of. ....

ⓐ amphibians ⓑ lizards ⓒ beetles ⓓ reptiles

19. All of these materials are opaque except ....

ⓐ wood ⓑ human body ⓒ book ⓓ water

20. It produces chemical reaction inside its body.....................

ⓐ butterflies ⓑ fireflies ⓒ house flies ⓓ owl

Question 02 put (true) or (false)

1. Light travels in straight lines. ( )
2. The ear is the sense organ responsible for seeing objects ( )
3. Nocturnal animals have bigger eyes than humans ( )
4. The fishing cat can't hunt in the dark ( )
5. Both human and animal need light to see. ( )
6. Nocturnal animals have eyes larger than human. ( )
7. Some animals can see clearly at night, such as a fishing cat ( )

8. The human eyes can see in the dark clearly. ( )
9. The moon is a source of light ( )
10. The light reflection depends on smoothness of the objects' surface ( )
11. If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ( )
12. Painted surface reflects light in one direction ( )
13. Shadow formed when light hits transparent object ( )
14. Wood is a transparent object that allows light to pass through it ( )
15. Opaque materials don't allow light to pass through ( )
16. Speaking, writing are ways to communicate with people. ( )
17. Human use light to communicate such as using traffic light ( )
18. Red and green traffic lights are codes ( )
19. Speaking is the only way to communicate with people ( )
20. Different languages have similar codes ( )

Question 03 Complete the following sentences

1. The form energy that can be seen is .... energy.
2. Light travels in .... lines.
3. .... is the organ that we can use to receive light.
4. You can see the objects due to the .... of light rays to the eyes
5. ...., ... and .... are sources of light
6. The mirror-like membrane in fishing cat eyes considered as a .... adaptation.
7. The eye pupil of the owl and fishing cats is .... than the eye pupil of the human
8. Smooth surfaces reflect light in .... direction.
9. Rough materials reflect light .... than smooth materials
10. Fireflies use the sense of .... to communicate with each other.
11. Ears of humans detect .... energy, while eyes detect .... energy
12. .... is considered an example for transparent materials.
13. .... is an opaque object.
14. Air and water are .... materials and you can see things through them

Question 04 write scientific term for each of the following

1. A device (tool) human use to see in the dark ( )
2. Objects that emit their own light ( )
3. A type of wild cats, that have eyes glow at nights. ( )
4. A body that appears lighted in the sky, but it is not considered as a source of light. ( )
5. They are materials reflect the light rays in one direction ( )
6. A type of surface that reflects light in different direction. ( )
7. The object which allows light to pass through it ( )
8. It is a visible form of energy that travels in form of waves ( )
9. The sense organ that can detect light energy ( )
10. The materials which don't allow light to pass through. ( )
11. It is a pattern that has meaning ( )
12. It is a code that use symbols in a pattern to give a specific meaning according to the arrangement of letter in a word ( )
13. It is a code in form of sounds used to transfer information ( )

Question 05 Give Reason for each of the following

1. Fishing cat eyes glow in the dark

....

2. Nocturnal animals can see better at night.

....

3. Sun is considered a source of light

....

4. Moon is not considered as a source of light

....

5. We can see objects when light fall on it

....

6. The pupils of the nocturnal animals' eyes open wider than human's eyes

....

7. A mirror can reflect light better than a painted surface.
....

8. You can see an object placed behind a glass cup
....

9. When light fall on mirror it reflects in one direction
....

10. A shadow is formed when light falls on an opaque object.
....

11. The human body forms a shadow when light falls on it.
....

12. Fireflies produce different pattern of flash light
....

13. Fireflies produce a chemical reaction inside their bodies
....

14. Humans use reading, writing and speaking
....

15. The symbols that are used in writing have specific pattern
....

Question 06 What happens if ?

1. The fishing cat eye don't have mirror-like membrane
....

2. light fall on a book
....

3. When the light falls on a smooth and shiny surface as mirror
....

4. The light falls on a rough surface.
....

5. Light fall on transparent object as glass window
....

6. When firefly wants to attract a mate to reproduce?

....

7. When firefly beetles want to communicate

....

8. The traffic light becomes red while you are going to cross road

....

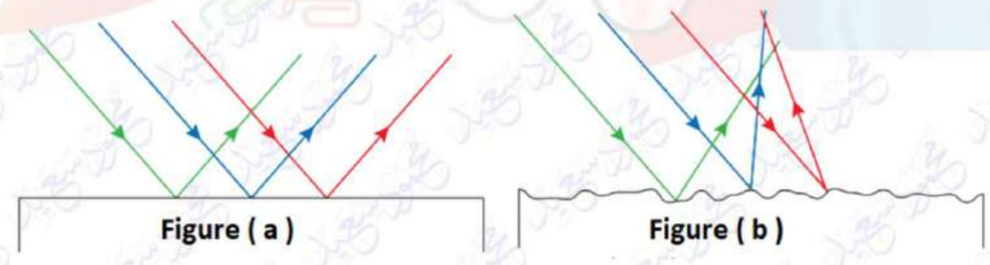
Question 07 cross the odd word

1. Fire - The moon - The Sun - The light bulb
2. Wood - Glass cup – Book - Wall
3. Lamp – Fire – Moon - Candle
4. Bats – fireflies - blind person's cane - dolphins
5. reading - writing - echolocation

Question 08 Answer the following questions

1. **Give one example for:**
   a. A transparent material.
   b. An opaque material.
   c. Objects that are considered as sources of light.

2. **Look at the following figures, then answer the questions below:**



   a. Which Surface represents reflection of light rays from mirror?
   b. Light travel in .... lines




Question 01 choose the corret answer

1. When an object is in motion, this means that its ....changes
   - a) color
   - b) shape
   - c) size
   - d) position
2. When you move something towards you, this represents......
   - a) pushing force
   - b) light energy
   - c) pulling force
   - d) sound energy.
3. All the following motions occur by the effect of pulling force, except..........
   - a) kicking a ball
   - b) opening a closed drawer
   - c) wearing your socks
   - d) lifting up a bag from the ground
4. When you sit on a chair, the force of gravity is ....and holding you in the chair
   - a) pulling you upward
   - b) pulling you downward
   - c) pushing you upward
   - d) pushing you downward
5. Push or pull actions are considered as types of ....
   - a) force
   - b) device
   - c) energy
   - d) adaptation
6. The force that pulls the objects down toward the center of the earth is ...
   - a) gravity
   - b) pushing
   - c) pulling
   - d) wind
7. You can see the movement of the following objects except the movement of............
   - a) flying airplane
   - b) running horse
   - c) sea waves
   - d) the planet Earth
8. Objects need a force to move, this force is called..................
   - a) pushing only
   - b) pulling only
   - c) pushing and pulling
   - d) gravity only
9. When a ball stands on the ground without moving, the forces acting on it are.............
   - a) balanced
   - b) unbalanced
   - c) push it up
   - d) not equal
10. Which of the following will cause an object to move?
    - a) balanced forces
    - b) unbalanced forces
    - c) sound energy
    - d) light energy
11. All of the following are examples of motion, except ....
    - a) a running person
    - b) Falling ball
    - c) flying bird.
    - d) sleeping dog
12. When you throw a ball in the air, the gravity will make it move ......upward
    - a) upward
    - b) forward
    - c) downward
    - d) backward



Question 02 put (true) or (false)

1. Pushing force of gravity makes the ball falls down after throwing it in air . ( )
2. The balanced forces cause the object to move ( )
3. Hitting a tennis ball needs a pulling force ( )
4. When a pen falls down from your hand, the acting force is the gravity ( )
5. The stopping object can't move until a force act on it ( )
6. Gravitational force is an upward pulling force ( )
7. When the position of the body changes from a fixed point, the body moves ( )
8. Unbalanced forces cause a change in the object position ( )

Question 03 complete the following sentences using the word between brackets

(balanced – unbalanced – gravity – motion)

1. The .... forces cause the object to move.
2. .... is any change in the position of an object relative to a fixed starting point.
3. When playing pulling a rope game, if each team pulls the rope with equal force, the forces are ....
4. The force that causes falling objects toward the Earth is .... force.

Question 04 write scientific term for each of the following

1. A force that you make to move an object away from you ( )
2. One of the fastest and most powerful trucks in the world ( )
3. It is a push or pull that is applied to an object cause it to change its position. ( )
4. The force that pulls objects toward the center of the earth ( )
5. A change in the position of an object relative to a fixed starting point. ( )

انتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق

جميع اسئلة الشيت اسئلة رسمية من امتحانات المحافظات يمكنكم متابعه الحل من خلال قناه كارتون ساينس

Answers









November Questions Bank



Question 01 choose the corret answer



1. Light travels in .... lines in form of waves
   - (a) straight
   - (b) curved
   - (c) zigzag
   - (d) circular
2. Which of the following organs are working together for seeing different objects?
   - (a) Nose and brain
   - (b) Eyes and brain
   - (c) Ears and brain
   - (d) Tongue and brain.
3. The organ that is responsible for the sense of sight is ....
   - (a) the ear
   - (b) the tongue
   - (c) the nose
   - (d) the eye
4. All the following things are considered as light sources, except ....
   - (a) the Sun
   - (b) fire
   - (c) eyes
   - (d) the light lamp
5. Which of the following is a source of light?
   - (a) the moon
   - (b) our eyes
   - (c) fire
   - (d) mirror
6. All the following considered as a source of light except ....
   - (a) sun
   - (b) candle
   - (c) fire
   - (d) moon
7. .... eye glows and it can see in the dark.
   - (a) Human
   - (b) Penguin
   - (c) Fishing Cat
   - (d) Bull shark
8. .... energy affects the sensory receptors in the eye causing vision.
   - (a) Sound
   - (b) Kinetic
   - (c) Light
   - (d) Magnetic
9. Humans have......... eyes than nocturnal animals.
   - (a) bigger
   - (b) smaller
   - (c) stronger
   - (d) sharper
10. From transparent objects.......................
    - (a) metals
    - (b) lens
    - (c) mirror
    - (d) wood
11. All of the following are transparent objects, except ....
    - (a) glass
    - (b) water
    - (c) paper
    - (d) air



12. All of the following are forms of codes, except ....

ⓐ thumb up ⓑ faces expressions ⓒ writing ⓓ swimming

13. Sense organs collect information and send signals to .... for processing and understanding.

ⓐ hands ⓑ legs ⓒ brain ⓓ stomach

14. Reading and writing are common types of communication in .... world.

ⓐ humans ⓑ animals ⓒ birds ⓓ plants

15. Raising the thumb up or lowering it down is a type of ....

ⓐ colors ⓑ codes ⓒ waves ⓓ lights

16. Metal and wood are .... materials.

ⓐ opaque ⓑ transparent ⓒ liquids ⓓ gaseous

17. Animals can communicate with each other through....................

ⓐ sound and light ⓑ eating ⓒ writing ⓓ reading

18. A firefly is not a bird, but it is a type of. ....

ⓐ amphibians ⓑ lizards ⓒ beetles ⓓ reptiles

19. All of these materials are opaque except ....

ⓐ wood ⓑ human body ⓒ book ⓓ water

20. It produces chemical reaction inside its body.....................

ⓐ butterflies ⓑ fireflies ⓒ house flies ⓓ owl

Question 02 put (true) or (false)

CONCEPT 1.3

1. Light travels in straight lines. ✓
2. The ear is the sense organ responsible for seeing objects ✗
3. Nocturnal animals have bigger eyes than humans ✓
4. The fishing cat can't hunt in the dark ✗
5. Both human and animal need light to see. ✓
6. Nocturnal animals have eyes larger than human. ✓
7. Some animals can see clearly at night, such as a fishing cat ✓
8. The human eyes can see in the dark clearly. ✗




9. The moon is a source of light ✗
10. The light reflection depends on smoothness of the objects' surface ✓
11. If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ✓
12. Painted surface reflects light in one direction ✗
13. Shadow formed when light hits transparent object ✗
14. Wood is a transparent object that allows light to pass through it ✗
15. Opaque materials don't allow light to pass through ✓
16. Speaking, writing are ways to communicate with people. ✓
17. Human use light to communicate such as using traffic light ✓
18. Red and green traffic lights are codes ✓
19. Speaking is the only way to communicate with people ✗
20. Different languages have similar codes ✗

Question 03 Complete the following sentences

1. The form energy that can be seen is light energy.
2. Light travels in straight lines.
3. eye is the organ that we can use to receive light.
4. You can see the objects due to the reflection of light rays to the eyes
5. sun, candle and fire are sources of light
6. The mirror-like membrane in fishing cat eyes considered as a structural adaptation.
7. The eye pupil of the owl and fishing cats is wider than the eye pupil of the human
8. Smooth surfaces reflect light in one direction.
9. Rough materials reflect light less than smooth materials
10. Fireflies use the sense of sight to communicate with each other.
11. Ears of humans detect sound energy, while eyes detect light energy
12. Air is considered an example for transparent materials.
13. Wood is an opaque object.
14. Air and water are transparent materials and you can see things through them

Question 04 write scientific term for each of the following

	Statement	Term
1	A device (tool) human use to see in the dark	night vision goggles
2	Objects that emit their own light	Sources of light
3	A type of wild cats, that have eyes glow at nights.	Fishing cat
4	A body that appears lighted in the sky, but it is not considered as a source of light.	The moon
5	They are materials reflect the light rays in one direction	smooth and shiny material
6	A type of surface that reflects light in different direction.	Rough surface
7	The object which allows light to pass through it	transparent object
8	It is a visible form of energy that travels in form of waves	light
9	The sense organ that can detect light energy	Eye
10	The materials which don't allow light to pass through.	Opaque object
11	It is a pattern that has meaning	Code
12	It is a code that use symbols in a pattern to give a specific meaning according to the arrangement of letter in a word	writing
13	It is a code in form of sounds used to transfer information	language

Question 05 Give Reason for each of the following

1. Fishing cat eyes glow in the dark
because it has a mirror-like membrane at the back of its eyes which reflect light

2. Nocturnal animals can see better at night.
Because of mirror-like membrane at the back of their eyes that reflect light falls on it

3. Sun is considered a source of light
Because it emits light

4. Moon is not considered as a source of light
Because it reflects sun light.

5. We can see objects when light fall on it
Because of light reflection




6. The pupils of the nocturnal animals' eyes open wider than human's eyes
To allow more light to enter their eyes

7. A mirror can reflect light better than a painted surface.
Because the mirror is more smooth than the painted surface

8. You can see an object placed behind a glass cup
Because glass is transparent object allow light to pass through

9. When light fall on mirror it reflects in one direction
Because mirror is a shiny and smooth surface

10. A shadow is formed when light falls on an opaque object.
Because opaque object doesn't allow light to pass through

11. The human body forms a shadow when light falls on it.
Because human body is opaque object don't allow light to pass through it

12. Fireflies produce different pattern of flash light
To warn off from predators or attract a mate (To communicate with each other)

13. Fireflies produce a chemical reaction inside their bodies
To light up and communicate with each other

14. Humans use reading, writing and speaking
To communicate with each other

15. The symbols that are used in writing have specific pattern
To give a specific meaning according to arrangement of letters

Question 06 What happens if ?

1. The fishing cat eye don't have mirror-like membrane
They cannot see clearly at night

2. light fall on a book
Light rays reflect to our eyes so we can see the book

3. When the light falls on a smooth and shiny surface as mirror
Light rays will reflect in one direction.

4. The light falls on a rough surface.
Light rays will reflect in different directions.

5. Light fall on transparent object as glass window
Light will pass through it and I can see objects through it

6. When firefly wants to attract a mate to reproduce?
It produces a chemical reaction inside its body to light up

7. When firefly beetles want to communicate
It produces a chemical reaction inside its body to light up

8. The traffic light becomes red while you are going to cross road
The eyes send a message to brain – brain process information (stop walking)

Question 07 cross the odd word

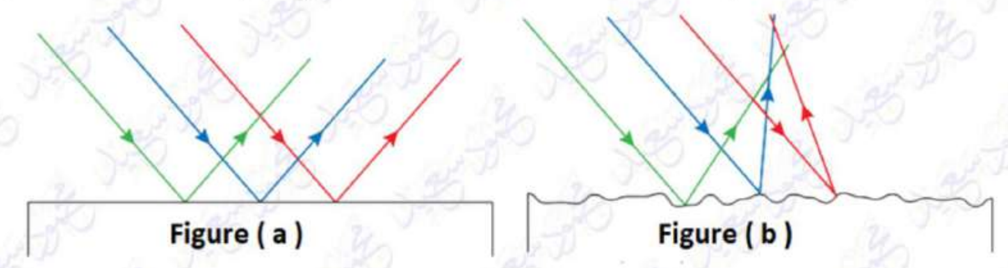
1. Fire - The moon - The Sun - The light bulb	The moon
2. Wood - Glass cup – Book - Wall	Glass cup
3. Lamp – Fire – Moon - Candle	Moon
4. Bats – fireflies - blind person's cane - dolphins	Fireflies
5. reading - writing - echolocation	echolocation

Question 08 Answer the following questions

1. **Give one example for:**

a. A transparent material.	Air
b. An opaque material.	Human body
c. Objects that are considered as sources of light.	Sun

2. **Look at the following figures, then answer the questions below:**



a. Which Surface represents reflection of light rays from mirror? Figure (a)
b. Light travel in straight lines





Question 01 choose the corret answer

1. When an object is in motion, this means that its ....changes
   - (a) color (b) shape (c) size (d) position

2. When you move something towards you, this represents......
   - (a) pushing force (b) light energy (c) pulling force (d) sound energy.

3. All the following motions occur by the effect of pulling force, except..........
   - (a) kicking a ball
   - (b) opening a closed drawer
   - (c) wearing your socks
   - (d) lifting up a bag from the ground

4. When you sit on a chair, the force of gravity is ....and holding you in the chair
   - (a) pulling you upward
   - (b) pulling you downward
   - (c) pushing you upward
   - (d) pushing you downward

5. Push or pull actions are considered as types of ....
   - (a) force (b) device (c) energy (d) adaptation

6. The force that pulls the objects down toward the center of the earth is ...
   - (a) gravity (b) pushing (c) pulling (d) wind

7. You can see the movement of the following objects except the movement of............
   - (a) flying airplane (b) running horse (c) sea waves (d) the planet Earth

8. Objects need a force to move, this force is called..................
   - (a) pushing only (b) pulling only (c) pushing and pulling (d) gravity only

9. When a ball stands on the ground without moving, the forces acting on it are.............
   - (a) balanced (b) unbalanced (c) push it up (d) not equal

10. Which of the following will cause an object to move?
    - (a) balanced forces (b) unbalanced forces (c) sound energy (d) light energy

11. All of the following are examples of motion, except ....
    - (a) a running person (b) Falling ball (c) flying bird. (d) sleeping dog

12. When you throw a ball in the air, the gravity will make it move ......upward
    - (a) upward (b) forward (c) downward (d) backward

Question 02 put (true) or (false)

1. Pushing force of gravity makes the ball falls down after throwing it in air. ✖
2. The balanced forces cause the object to move ✖
3. Hitting a tennis ball needs a pulling force ✖
4. When a pen falls down from your hand, the acting force is the gravity ✔
5. The stopping object can't move until a force act on it ✔
6. Gravitational force is an upward pulling force ✖
7. When the position of the body changes from a fixed point, the body moves ✔
8. Unbalanced forces cause a change in the object position ✔

Question 03 complete the following sentences using the word between brackets

(balanced – unbalanced – gravity – motion)

1. The unbalanced forces cause the object to move.
2. Motion is any change in the position of an object relative to a fixed starting point
3. When playing pulling a rope game, if each team pulls the rope with equal force, the forces are balanced
4. The force that causes falling objects toward the Earth is gravity force.

Question 04 write scientific term for each of the following

1. A force that you make to move an object away from you — push force
2. One of the fastest and most powerful trucks in the world — shockwave trunk
3. It is a push or pull that is applied to an object cause it to change its position — force
4. The force that pulls objects toward the center of the earth — gravity
5. A change in the position of an object relative to a fixed starting point — Motion

انتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق

جميع اسئلة الشيت اسئلة رسمية من امتحانات المحافظات يمكنكم متابعه الحل من خلال قناه كارتون ساينس




مقدم مجانا من قناة مستر ساينس على اليوتيوب أ. شريف الهواري 01013666614



Exercises on Concept 1.3

Q.1: Complete the following statements from the brackets:

1 - Humans see in presence of ……………. (sound - light)

2- A person sees through dim light…………. (easily - hard)

3 - All cats have a membrane at the back of their eyes that acts as a ….. (glasses - mirror)

4- A ……has an eye that helps it to catch its food at night. (dolphin - cat)

5- Cats see at night because .... is behind their eyes. (Transparent mat - colored lenses)

6 - ………. are from light sources that work with electricity. (Sun - Lamps)

7- The eyes of nocturnal animals are…… than the eyes of humans. (bigger - smaller)

8- The tarsier monkey is …………animal. (big - small)

9 - The eyes of the tarsier monkey….. .any light around it. (collect- break up)

10 - Light is a form of …….... (strength - energy)

11-Human eye………. (contain a tapetum lucidum - does not contain a tapetum lucidum)

12 …….bodies form shadow. (Transparent - Opaque)

13 - ………..is from transparent objects. (Iron - Glass)

14 - ………………is from dark objects. (Water - Wood)

15 - The way of light reflection depends on …….. (surface smoothness - surface area)

16 - A mirror is considered a shiny surface, because it ….. (radiates light - reflects light)

17 - Light does not pass through the…….. material. (transparent - opaque)

18 - The light is scattered in different directions, when it falls on a…(mirror - painted wall)

Q2: Put (✓) in front of the correct statement, and (✗) in front of the incorrect statement:

1-The eye is the sense organ responsible for seeing things. ( )

2 - Light falls on objects and then is reflected back on the eye. ( )

3- The moon is not a source of light. ( )

4- Humans need light source to see. ( )

5- The tapetum lucidum in the eyes of animals, help in keeping their lives. ( )

6 - The eyes of the tarsier monkey move in all directions. ( )

7- The tarsier monkey appears in its environment at night. ( )

8- The tarsier monkey is a small animal. ( )

9 - The tarsier monkey eats plants. ( )

10 - Iron is a transparent body, that does not allow light to pass through it. ( )

11-Nocturnal animals have eyes that are smaller than the human eye. ( )

12 - If I cannot see my face clearly on a surface, it means that it is a smooth, shiny surface( )

Q3: Choose the correct answer:

1- The external effect, that affects the eye and causes a sense of vision is….. energy.

light

vocal

electrical

thermal

2- The organ responsible for interpreting what the eye sees is ………..

spine.

the brain.

diaphragm.

small intestine.

3- All of the following are sources of light except……….

the flashlight.

candle.

eye.

stars.

4 – You can see your image in the mirror because of light ……………

reflection.

shadow.

scattering.

refraction.

5- We can see objects in the presence of light because……………..

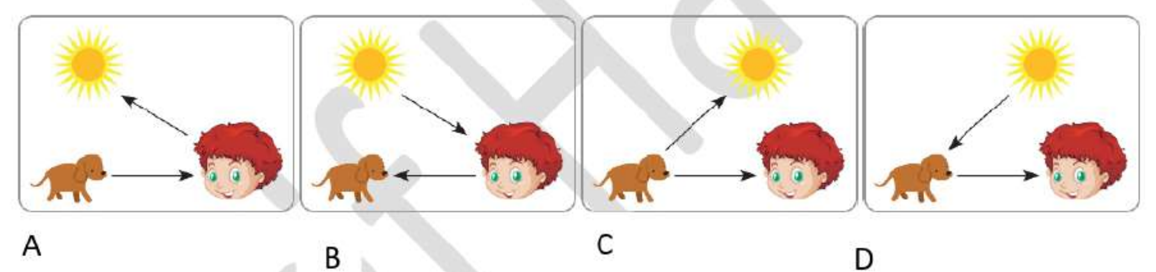
objects reflect light rays back to the eye.

objects are transparent.

the eye sends rays to the body.

objects are dark.

6-Ahmed is studying how the eye can see objects choose the correct figure that represents the conclusion that Ahmed reached to:



A B C D

7-Cats have in the back of their eyes a transparent membrane, that acts as…..

earphone.

eyeglasses.

lens.

mirror.

8 - The tarsier monkey is characterized, by the ability to rotate its head at an angle equal …………..degrees.

270

180

120

90

9 - The tarsier monkey is similar to ………………in large eyes.

fennec fox

polar bear

fishing cat

owl

10- Which of the following objects allows light to pass through?

Iron

Air

Paper

Stones

11 - …………..is a material that reflects light well:

A mirror

Paper

A wall

Iron

12-The arrows in the following figures represent light rays. Which figure shows how light is reflected on a mirror?

A B C D

13-What happens to light when it falls on a rough surface? It is ……..

reflected regularly.

reflected irregularly.

scattered.

absorbed.

14 - The following materials are opaque except…..

iron

wood

carton paper

water

15 - Which of the following is a source of light?

A mirror

Fire

The eyes

The moon

16 - …………is used to describe light, when it falls on a smooth and shiny surface and then bounces back.

Wave length

Reflection

Energy

The shadow

Q4: Give reason for :

1-Glass is a transparent material.

2- Wood is an opaque material.

3- A shadow is formed for opaque objects.

Q5: Write the scientific term :

1 - The object that emits its own light.

2- An opaque body that reflects the sunlight falling on it, so we see it shining.

3- A thin layer in the back of the eye, that reflects light like a mirror.

4- Returning of light when it falls on a reflective surface.

5- Objects that form shadow, when light falls on them.

6- Objects that do not have a shadow.

7- Objects that do not allow light to pass through them.

8- Objects that allow light to pass through.

9 - The surface that reflects the light falling on it in one direction.

10 - The surface on which the incident light is scattered in different directions.

Q.6What happens when...?

1-light falls on an opaque object.

2 – light falls on a transparent material.

3-light falls on a smooth surface.

Q.7 Match A with B:

A	B
1-A material that allows light to pass through. 2- An object that reflects light in one direction. 3- It is formed when light falls on an opaque object. 4 -An object that scatters light in different directions	( )Brick wall. ( ) The shadow . ( ) Air. ( ) Woman . ( )The transparent layer

Selected questions from exams on the concept 1.3

Q.1 Choose the correct answer:

1- …. energy affects the sensory receptors in the eye, causing a sense of vision.

Light

Sound

Magnetic

Kinetic

2- What is the organ responsible for interpretation of, what we see with our eyes?

The brain

Stomach

Esophagus

Lungs

3- All of the following are sources of light except……..

the flashlight

fire

the eye

the sun

4- The transparent layer is found in all of the following except:

humans

cats

dogs

horses

5- …………………is from reflective materials of light.

Plastic

The wood

Paper

Mirror

6- Which of the following allows light to pass through?

Wood

Glass

The moon

A rock

7 - …….phenomenon helps you to see yourself in the mirror?

Reflection

Short rays

Beam length

Refraction

8 - ……….is a surface that regularly reflects light

A mirror

A carton

Glass

A wall

Q.2 Put (✓) in front of the correct statement, and (✗) in front of the incorrect statement:

1-The ear is the sensory organ responsible for seeing things. (   )

2 - The moon is a source of light. ( )

3 - If I can see my face clearly on a surface, this means that it is a smooth, shiny surface. ( )

4- Wood is a transparent surface that allows light to pass through it. ( )

5- Nocturnal animals have eyes, that are larger than the human eye. ( )

6 - Some animals can see at night, such as a wild cat. ( )

7- A person has a transparent layer in his eye, to help in seeing at night. ( )

8- Seeing with our own eyes is a means, that helps us gather information about the environment around us. ( )

Q.3 Choose the correct answer:

1- ……………is from opaque bodies. (Carton - Glass)

2- The eye sends nerve messages to the………… nerves. (brain - spinal cord)

3 - Cats' eyes adapt to night vision, due to the presence of …….behind their eyes.

(tapetum lucidum - wide lenses)

4 - We can see an object when light falls on it, then it …..on eyes   (refracts- is reflected)

5-……..surfaces reflect light rays in different directions. (Smooth - Rough)

6-…... is an example of an object, that allows light to pass through it. (A lens - Paper)

7- …. is formed when light is absorbed by an opaque object.(Transparent – Shadow)

Q.3 Answer the following questions:

1-Your friend wanted to prevent the light from entering his room.

Suggest some materials he could use on the window, to prevent the light from entering the room.

……………………………………………………………

……………………………………………………………

2- Complete from the opposite figure:

- Light falls on the …… then is reflected on the eye

- Eyes ……… the message to ……, that interpretes and translates it, so we see the apple.

3 - In the opposite fig. Look at the path of the light rays:

- Which of the two objects is opaque….

- Which one is transparent…….

A B

4 - I saw an eye shining in the dark. In your opinion, what is this animal?

……………………………………………………………………………………………

5- Which of the following two figures, represents the reflection of light rays from a wood

A B

مقدم مجانا من قناة مستر ساينس على اليوتيوب أ. شريف الهواري 01013666614

Exercises on Concept 2.1



① Choose the correct answer

1. The trucks engines are………..airplanes.

a. Less powerful than b.as powerful as c. more powerful than

2. By increasing number of fire extinguishers, the air comes out increases, so the vehicle speed……………….

a. increase b. decrease c. remains constant

3. What force do you use to kick a ball with your leg?

a. Pull. b. Push. c. Sound. d. Light.

4. When an object is in motion, this means that it's……….. changes.

a. shape b. size c. position d. color

5. All of the following are examples of motion except………….

a. a running person. b. a ball travelling through the air.

c. a flying bird. d. a sleeping dog.

6. Gravity is a force that ……………….

a. pushes objects down toward the Earth.

b. pulls objects down toward the Earth.

c. pushes objects toward the sky.

d. pulls objects toward the sky.

7. When you push the pedals of the bicycle, you will……………………..

a. move in the same direction
b. move in the opposite direction
c. not move

8. An object stops moving when friction force between touching surface………….

a. increase b. decrease c. No correct answer

9. The force needed to kick a big ball………the force needed to kick a small ball.

a.is larger than b.is smaller than c. equal

10. The friction force between two touching surface, its effects acts in the……………..direction of the moving body.

a. opposite b. same c. No correct answer

11. The force that occurs when an object rubs against another object is called ……

a. friction. b. gravity. c. push. d. pull

12. To stop a moving object we can apply a ……………… against it.

a. pushing force c. sound energy

b gravity force d. light energy

②Write the scientific term:

1. It is a push or pull that is applied to an object causes it to change its position.	(……………….)
2. It is a force that is exerted when objects rub against each other	(……………….)
3. It is a force that slows down the motion of moving objects.	(……………….)
4. The change of the position of the body from one place to another	(……………….)
5. The ability to do a work.	(……………….)
6. The measure of energy transfer that occurs when an object is moved over a distance	(……………….)
7. The force that opposes the motion of an object	(……………….)
8. A force that you make to move an object towards you	(……………….)
9. A force that you make to move an object away from you	(……………….)
10. One of the fastest and most powerful trucks in the world.	(……………….)
11. Two **equal** forces in 2 different directions	(……………….)

12. Two **unequal** forces in two different directions	(..................)

③Give a reason:

1. The Shockwave truck is faster than the normal truck.
Because it has 3 jet engine

2. Engineers use parachutes in the Shockwave truck designs.
To decrease the speed of the truck and stop it.

3. When two equal pushing forces act on an object in opposite directions, the object doesn't move.
Because the forces are balanced

4. If you let a pen out of your hand, it falls to the ground
Due to the gravity

5. When you stop pedaling during the movement of your bicycle, it slows down until it stops.
Due to the friction force.

④Put (√) or (×)

1- When a balanced force is applied on an object, it will not move. (   )
2- By increasing the force applied in an object, the distance of motion will decrease. (   )
3- Friction force must exist to move bodies (   )
4- Lifting a book upward needs more energy than pushing a truck. (   )
5- If you try to open a door but you cannot open it, this means that work is done.

④Complete the following:

1. We need a...........................to move on object.

2. When Ali kicked the ball, it moved away from his starting position and started to slow down until it stopped completely due to the effect of a ....force

3. When you press the brakes of the bike, it is on example of the………. force

4 Falling the book from your hand on the ground is considered ….force.

5. If an unbalanced forces are applied on an object, the object will……………………………

6. The motion of a flying eagle……………be seen.

7. When we rub our hands, we feel ………………

8. Small truck can move……………… distance than larger truck.

9. ………………is an invisible force that holds us to the Earth`s surface.

10. When you lift up an object from the ground, there are two forces act on it, which are the……………force of your hand and……………force of the gravity.

④Correct the underline word:

1. By increasing the speed of a moving cart, the distance that it moves will **decrease**.
2. Moving an object away from you represents **a pulling** force.
3. Moving an object towards you represents a **pushing** force.
4. The **balanced** forces cause the object to move

لتحصل على الإجابة تابع الفيديو في قناة
مستر ساينس على اليوتيوب يوم السبت
2023-11-25



Give reason

1- The fishing cat eyes seem to glow in the dark
Because it has a mirror like membrane on the back of its eyes which bounces off light

2- Candle is considered as a source of light
Because it gives off their own light

3- We can see the moon shining at night although it is not a source of light
Because it does not give off their own light, but it reflects light

4- Nocturnal animals can see better than humans at night
Because they have bigger eyes and wider pupils which are more sensitive to light than human

5- Shadow of an opaque body is formed when light falls on it
Because the opaque body does not allow light to pass through

6- you can see an object placed behind a glass cup
Because transparent materials allow light to pass through

7- A mirror can reflect light better than a painted surface
Because the mirror is more smooth than the painted surface

8- Humans receive and send information through speaking, writing, and reading
To communicate with each other

9- Fireflies use different patterns of flashlight to communicate with each other
To warn off their predators or attract a mate

10- Fireflies produce a chemical reaction inside their bodies
To light up their bodies and communicate with each other
11- The symbols that are used in writing have a specific pattern
To give a specific meaning according to the arrangement of letters in a word
12- We use the expressions on faces during talking with each other
To help people predict our feelings
13- The shockwave truck is faster than the normal truck
Because it has three jet engines
14- Engineers use parachutes in the shockwave truck designs
To stop the shockwave truck
15- By increasing the number of fire extinguishers, the distance that the cart moves will increase
Because by increasing the number of fire extinguishers, the speed of the cart will increase
16- When you kick a ball laying on the ground, it moves
Because of the pushing force of your leg on it
17- When two equal pushing forces act on an object in opposite directions, the object does not move
Because the two forces are balanced so the object doesn't move
18- If you let a pen out of your hand, it falls to the ground
Because of the pulling force of gravity down toward the Earth
19- When your friend catches a ball that is thrown in the air, the motion of the ball is stopped
Because of the pushing force of his hand

What happens if/to

1- The mirror like membrane in the fishing cats' eyes is damaged
Fishing cat cannot see or hunt at night

2- the moon cannot reflect light
It appears dark and we cannot see it

3- you place an opaque object between a light source and a wall
Light cannot pass through the opaque object to the wall, so shadow of the object is formed on the wall

4- light falls on a transparent body such as a glass window
Light passes through the glass window

5- Light falls on a rough surface according to the direction of the reflected light rays
Light rays are reflected in different directions

6- A person makes flashing pattern by LED lights near to a group of fireflies
The fireflies imitate the flashing pattern that the person made

7- A firefly wants to attract a mate to reproduce
It produces a chemical reaction inside its body to light up and attract a mate

8- The traffic light becomes red while you are going to cross the road
the eyes send a message to the brain to stop walking and not to cross the road

9- You kick a stopped ball on the ground
It moves due to the pushing force

10- Engineers placed jet engines inside a normal truck instead of its normal engine
It turns to shockwave and move much faster
11- The shockwave driver opens the parachutes
It will stop gradually
12- The pulling force of the two teams are equal in the tug of war game
The rope will not move
13- The pulling force of the two teams in tug of war game are not equal
The rope will move towards the team of greater pulling force
14- You let your toy out of your hand
It will fall down due to the pulling force of gravity

Question 1: choose the correct answer

1- When you move something toward you, this represents ....
   a) Pushing force
   b) Pulling force
   c) Light energy
   d) Sound energy

2- Displaying light is a type of communication that is found in
   a) Plants only
   b) Plants and humans
   c) Animal and humans
   d) Animals only

3- all the following are examples of motion except.............
   a) A running person
   b) A ball traveling through the air
   c) A flying bird
   d) A sleeping dog

4- Reading and writing are common types of communication in the .... world
   a) Humans
   b) Animals
   c) Birds
   d) Plants

5- When an object is in motion, this means that its .... changes
   a) Color
   b) Shape
   c) Size
   d) Position





6- If there is nothing to stop the movement of an object, this object will ....

a) Stay in motion
b) Suddenly stop
c) Stop after few minutes
d) Stop after few seconds

7- Push or pull actions are considered as types of ....

a) Force
b) Device
c) Energy
d) Adaptation

8- Animals can communicate with each other through ....

a) Sounds and lights
b) Talking
c) Reading
d) Writing

9- which of the following allows light to pass through it

a) a rock
b) moon
c) fire
d) Glass

10- which of the following is a source of light

a) eye
b) moon
c) fire
d) mirror

11- raising the thumb up or lower it down is a kind of

a) colors
b) codes
c) waves
d) lights

12-when a light falls on a dark surface, ...

a) The surface absorbs the light
b) Light passes through it
c) The light is refracted
d) Nothing happens

13- all the following are examples of pulling force except

a) Kicking a ball
b) Pulling the rope
c) Opening the desk's drawer
d) Lifting up your bag

14-all the following represents the pushing force except

a) Kick a ball
b) Press on electrical switch
c) Close the desk's drawer
d) Lifting up a bag

15- the organ responsible for the sight sense is ....

a) The ear
b) The tongue
c) The nose
d) The eye

16- the force that pulls the objects down toward the center of the Earth is ....

a) Gravity
b) Pushing
c) Water
d) Wind

17- objects need force to move, this force is represented in ....

a) Pushing only
b) Pulling only
c) Pushing and pulling together
d) The Earth gravity only

18- when a ball stands on the ground without moving, the forces acting on it are ....

a) Balanced
b) Un balanced
c) Push it up
d) Not equal

19- from the opaque objects

a) Cartoon
b) Glass
c) air

20-from the organs that we can use to send or receive the code ....

a) Heart
b) Ear
c) Leg

21- which of the following organs can work together for seeing different objects

a) Nose and brain
b) Eyes and brain
c) Ears and brain

22- the eyes of fishing cat glow in the dark because their eyes..........

a) Emit their own light
b) Can reflect light
c) Are small in size
d) Have narrow pupils

23- when light rays hit an object, all the following are correct except

a) Some of the rays are absorbed by the object
b) Some of the rays are bounced off the object
c) Some of the rays may go through the objects
d) All the rays are absorbed by the object

24- all the following are forms of codes except ....

a) Thumb up and down
b) Face expressions
c) Writing
d) Swimming

Question 2: put true or false

1- Cats have excellent night vision while snakes and bats are not ( )
2- The main difference between pulling and pushing forces is the direction of the force ( )
3- At night, cats' eyes look like small lighted lamps ( )
4- Unbalanced forces keep an object in its place without moving ( )

5- The moon is considered as a light source (   )
6- in a complete dark room, you can use the sense of touching, tasting, smelling, and hearing only (   )
7- Wood is a transparent object that allows light to pass through it ( )
8- The seesaw moves up and down because the forces acting on it are unbalances (   )
9- Some animals can see at night (   )
10- When the position of a body changes according to a fixed point, the body moves (   )
11- Light travels in straight lines (   )
12- Red and green traffic lights are considered codes (   )
13- Gravity pulls objects towards the center of the Earth (   )
14- The brain is responsible for processing information (   )
15- Both humans and animal don't need a source of light to see (   )
16- Speaking is the only way to communicate with people (   )

Question 3: What happens if

1- Light falls on a mirror that has few cracks
2- You are standing on the ground, and you let a ball out of your hand
3- The mirror like membrane of a fishing cat is not present
4- Light falls on a transparent body such as a glass window
5- A fire fly wants to attract a mate

Question 4: complete the following sentences

1- The different languages are considered as ....
2- The eye sends messages to .... through the nerves
3- The eyes of fishing cats have a mirror like membrane bounces off light and this is considered .... adaptation
4- Light travels in .... lines





5- Fireflies beetles use the sense of .... to communicate with each other

Question 5: write the scientific term

1- It is the force that pulls objects toward the center of the Earth ( )
2- A type of surface that reflects light in different directions when the light falls on it ( )
3- A body that appears lighted in the sky but not a source of light ( )
4- The visible form of energy that enable us to see ( )
5- Materials that allow light to pass through ( )
6- Sense organs that detect light energy ( )

Question 6: Give reason for the following

1- when your friend catches a ball that is thrown in the air, the movement of the ball is stopped
2- A mirror can reflect the light better than a painted surface.
3- Candle is considered as a source of light
4- Fireflies produce a chemical reaction inside their bodies

Question 7: Cross out the odd word

1- The sun- the moon- fire- candle
2- Bats- fireflies- blind person's cane- dolphins
3- Guitar – flashlight- radio – alarm bell

Model answers

Question 1: choose the correct answer

1- When you move something toward you, this represents ....
a) Pushing force
b) Pulling force
c) Light energy
d) Sound energy

2- Displaying light is a type of communication that is found in
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c) Animal and humans
d) Animals only

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c) A flying bird
d) A sleeping dog

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b) Animals
c) Birds
d) Plants





5- When an object is in motion, this means that its .... changes

a) Color
b) Shape
c) Size
d) Position

6- If there is nothing to stop the movement of an object, this object will ....

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c) Stop after few minutes
d) Stop after few seconds

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b) Unbalanced
c) Push it up
d) Not equal

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b) Eyes and brain
c) Ears and brain

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a) Emit their own light
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c) Are small in size
d) Have narrow pupils

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b) Some of the rays are bounced off the object
c) Some of the rays may go through the objects
d) All the rays are absorbed by the object

24- all the following are forms of codes except ....

a) Thumb up and down
b) Face expressions
c) Writing
d) Swimming




Question 2: put true or false

1- Cats have excellent night vision while bats have not **(T)**
2- The main difference between pulling and pushing forces is the direction of the force **(T)**
3- At night, cats' eyes look like small lighted lamps **(T)**
4- Unbalanced forces keep an object in its place without moving **(F)**
5- The moon is considered as a light source **(F)**
6- in a complete dark room, you can use the sense of touching, tasting, smelling, and hearing only **(T)**
7- Wood is a transparent object that allows light to pass through it **(F)**
8- The seesaw moves up and down because the forces acting on it are unbalanced **(T)**
9- Some animals can see at night **(T)**
10- When the position of a body changes according to a fixed point, the body moves **(T)**
11- Light travels in straight lines **(T)**
12- Red and green traffic lights are considered codes **(T)**
13- Gravity pulls objects towards the center of the Earth **(T)**
14- The brain is responsible for processing information **(T)**
15- Both humans and animal don't need a source of light to see **(F)**
16- Speaking is the only way to communicate with people **(F)**

Question 3: What happens if

1- Light falls on a mirror that has few cracks

Light rays are reflected in different directions

2- You are standing on the ground, and you let a ball out of your hand

It will fall down due to the pulling force of gravity

3- The mirror like membrane of a fishing cat is not present
   Fishing cat cannot see or hunt at night
4- Light falls on a transparent body such as a glass window
   Light passes through the glass window
5- A firefly wants to attract a mate
   It produces a chemical reaction inside its body to light up and attract a mate

Question 4: complete the following sentences

1- The different languages are considered as ...**Codes**...........
2- The eye sends messages to ..**Brain**........... through the nerves
3- The eyes of fishing cats have a mirror like membrane bounces off light and this is considered ....**Structural**........... adaptation
4- Light travels in .....**Straight.**................... lines
5- Fireflies beetles use the sense of ...**Sight.**........ to communicate with each other

Question 5: write the scientific term

1- It is the force that pulls objects toward the center of the Earth
   (Gravity)
2- A type of surface that reflects light in different directions when the light falls on it **(Rough surface)**
3- A body that appears lighted in the sky but not a source of light
   (Moon)
4- The visible form of energy that enable us to see **(Light energy)**
5- Materials that allow light to pass through **(transparent materials)**
6- Sense organs that detect light energy **(Eyes)**

Question 6: Give reason for the following

1- when your friend catches a ball that is thrown in the air, the movement of the ball is stopped
   Because of the pushing force of his hand
2- A mirror can reflect the light better than a painted surface.
   Because the mirror is more smooth than the painted surface
3- Candle is considered as a source of light
   Because it gives off their own light
4- Fireflies produce a chemical reaction inside their bodies
   To light up their bodies and communicate with each other

Question 7: Cross out the odd word

1- The sun- **the moon**- fire- candle
2- Bats- **fireflies**- blind person's cane- dolphins
3- Guitar – **flashlight**- radio – alarm bell







November Revision

Mr. Ahmed Elbasha

(1) Write the scientific term:

1) It is a push or pull that is applied to an object causes it to change its position. (..................................)

2) The force you can do to move an object away from you (..................................)

3) The force you can do to bring an object closer to you. (..................................)

4) A change in the position of an object relative to a fixed starting point (..................................)

5) The force that pulls objects down toward the Earth (..................................)

6) It is a force that is exerted when objects rub against each other (..................................)

7) It is a force that slows down the motion of moving objects (..................................)

8) The organ that is affected by light and responsible for sight (..................................)

9) The organ that is responsible for processing information received by eyes, to know and recognize the surroundings (..................................)

10) The visible form of energy that enables us to see (..................................)

11) Materials that allow light to pass through. (..................................)

12) Materials that we cannot see through it. (..................................)

13) A type of surfaces that reflects light in different directions (..................................)

14) Sense organ that can detect sound energy (..................................)

✸(2) Choose the right answer:

1. Light travels in .... lines in the form of waves.

a. curved b. zigzag c. straight d. circular

2. Sense organs collect information and send signals to .... for processing and understanding.

a. hands b. legs c. brain d. stomach

3. All of the following are forms of codes, except ....

a. thumb up and down hands. b. faces expressions.

c. writing. d. swimming.

4. Reading and writing are common types of communication in .... world.

a. humans b. animals c. birds d. plants

5. Push or pull actions are considered as types of ....

a. force. b. device. c. energy. d. adaptation.

6. When you move something toward you, this represents ....

a. pushing force. b. light energy. c. pulling force. d. sound energy.

7. Parachutes are used in the Shockwave truck to ....

a. increase its speed. b. decrease its speed.

c. keep its speed as it is. d. change its direction.

8. You can see the movement of the following objects, except the movement of ....

a. a flying airplane. b. a running horse.

c. sea waves. d. the planet Earth.

9. Gravity is a force that ....

a. pushes objects down toward the Earth. b. pulls objects down toward the Earth.

c. pushes objects toward the sky. d. pulls objects toward the sky.

10. To stop a moving object we can apply a .... against it.

a. pushing force b. gravity force c. sound energy d. light energy

11. Which of the following organs are working together for seeing different objects ? ......

a. Nose and brain. b. Eyes and brain.

c. Ears and brain. d. Tongue and brain.

12. The character that helps the fishing cat to hunt a prey at night, is its ability ....

a. to see the sunlight. b. of poor night vision.

c. to digest its prey easily. d. of excellent night vision.

13. In the fishing cat's eyes, the mirror-like membrane is an important structure because it helps them to .... at night.

a. sleep
b. breathe
c. keep their body warm
d. hunt a prey

14. The energy which must present to make our eyes able to see the objects around us is .... energy.

a. sound
b. electric
c. light
d. magnetic

15. Which of the following is not a reason for fireflies to produce a flash light? ....

a. To attract a mate.
b. For communication.
c. To warn off from predators.
d. To hear in the dark.

16. People can use the following ways to communicate, except ....

a. reading.
b. writing.
c. speaking.
d. flying.

17. A shadow of an object is formed because ....

a. light can pass through the object.
b. light cannot pass through the object.
c. this object is made of glass.
d. this object is transparent.

18. All of the following are transparent objects, except ....

a. glass.
b. water.
c. paper.
d. air.

19. Light rays can pass through lenses, so they are made up of ....

a. wood.
b. paper.
c. glass.
d. metal.

20. All objects around us can move by the effect of ....

a. pushing force only.
b. pulling force only.
c. pushing and pulling forces.
d. sound and light energies.

21. When an object is in motion, this means that it's .... changes.

a. color
b. shape
c. size
d. position

22. What makes a ball in the air fall down to the ground? ....

a. Friction force.
b. Gravity force.
c. Sound energy.
d. Light energy.

23. Which of the following will cause an object to move? ....

a. Balanced forces.
b. Unbalanced forces.
c. Sound energy.
d. Light energy.

24. The force that occurs when an object rubs against another object is called ....

a. friction.
b. gravity.
c. push.
d. pull.

✹(3) Put (√) or (X)

1. Friction force always slows down or stops the motion of moving objects. ( )
2. The motion of an object on the ground is affected by a friction force. ( )
3. Hard push causes an object to travel for a longer distance. ( )
4. Fireflies produce flash lights to warn off from predators. ( )
5. A cell phone is a device that is used in communication between humans. ( )
6. A car can move faster than a bicycle. ( )
7. A normal truck can move faster than a jet airplane. ( )
8. A normal truck is slower than the Shockwave truck. ( )
9. Parachutes are used to slow down the speed of the Shockwave truck quickly. ( )
10. By increasing the speed of a moving cart, the distance that it moves will decrease. ( )
11. Rough objects tend to reflect light better than smooth objects. ( )
12. Mirror reflects most of incoming light rays that fall on it. ( )
13. If a person moves a table through a distance, there is a work done. ( )
14. Hitting a tennis ball needs a pulling force ( )
15. The rotation of the Earth around the Sun is easy to be seen. ( )
16. Unbalanced forces keep an object in its place without moving. ( )
17. Unbalanced forces cause a change in the object position. ( )
18. Cats have excellent night vision, while humans are not. ( )
19. Both of the moon and the cat's eyes reflect the light that falling on them. ( )
20. The moon is not considered as a light source. ( )
21. Animals communicate with each other by using different senses. ( )

✹(4) Complete the following sentences:

1. If you push each of a small ball and a big ball with the same force, the small ball moves a distance .... than the big ball.
2. The speed of a ball moving on the ground decreases gradually until it stops due to the effect of .... force.
3. The fishing cat can hunt at night depending on the excellent sense of ....
4. The eyes of fishing cat have a mirror-like membrane bounces off the light, and this is considered as a .... adaptation.
5. To see things clearly at night, humans need a source of ....
6. Humans can communicate with each other where ears of human detect .... energy and eyes of human detect .... energy.
7. Fireflies use .... energy in their communication.
8. If we put more than one fire extinguisher to a cart, so the .... of this cart will increase.
9. When you throw a ball up in the air, it starts to fall down again toward the ground due to the effect of pulling force of ....
10. To stop the rolling ball on the ground, you need to exert a .... equal to that exerted by the ball in the opposite direction.
11. Objects that light can't pass through are called ...., while objects that allow light to pass through are called ....
12. A tree forms a shadow as it is an .... object that doesn't allow .... to pass through
13. Watching TV is a type of communication that use the senses of .... and ....

✹(5) Correct the underline

	Moving an object away from you represents a **pulling** force	(……………………..)
2.	Moving an object toward you represents a **pushing** force	(……………………..)
3.	The **balanced** forces cause the object to move	(……………………..)
4.	Changing the position of an object relative to a fixed point is known as **force**	(……………………..)
5.	Moving object stops when a force of the same amount is applied to it in the **same** direction of its motion	(……………………..)
6.	If a car runs out of fuel, its speed **increases**	(……………………..)
7.	**Opaque** materials include water, glass, air and lenses.	(……………………..)
8.	**Rough** objects reflect light rays in one direction at the same angle at which they struck the object	(……………………..)
9.	The energy that helps humans and animals see, is the **sound** energy.	(……………………..)
10.	The **moon** is one of the light sources	(……………………..)
11.	**Sound** is a visible form of energy that bounces off objects into our eyes.	(……………………..)
12.	Eyes send messages to the **heart** for processing information	(……………………..)

✹(6) Give reasons for:

1. Fireflies use different patterns of flashlights to communicate with each other.

....

2. The fishing cat's eyes seem to glow in the dark.

....

3. Candles are considered as a source of light.

....

4. When your toy car crashes into a wall, it will stop moving.

....

5. Engineers use parachutes in the Shockwave truck designs.

....

6. If you let a pen out of your hand, it falls to the ground.

....

7. Shadow of an opaque body is formed when light falls on it.

....

8. You can see an object placed behind a glass cup.

....

9. A mirror can reflect light better than a painted surface.

....

✸(7) What happens if ... ?

1. The traffic light becomes red while you are going to cross the road.

....

2. A car runs out of fuel on a flat road.

....

3. You push two similar balls with different forces on the ground

....

4. The mirror-like membrane in the fishing cat's eyes is not present.

....

5. The moon can't reflect the sunlight

....

6. You kick a stopped ball on the ground.

....

7. The Shockwave driver opens the parachutes

....

8. The pulling forces of the two teams are equal in the tug-of-war game.

....

9. You let your toy out of your hand.

....

10. You place a wood sheet between a light source and a wall.

....

11. Light falls on a transparent body such as a glass window.

....

12. Light falls on a rough surface

....

✹(8) Choose from column (B) what suits it in column (A) :

1

A	B
1. Thumb-up	**a.** is a code that means that you say "No".
2. Echolocation	**b.** is a code that means that you say "Yes".
3. Thumb-down	**c.** is a type of communication in animals only.

1- **2-** **3-**

2

A	B
1. Mirror	**a.** It is a smooth and shiny surface that reflects most of fall ing light
2. Piece of cloth	**b.** It is considered as a source of light
3. Reflected light	**c.** It is a rough surface that scatters reflected light rays
	d. It is the light that bounces off a reflecting surface

1- **2-** **3-**

✸(9) TRY TO ANSWER:

1

The following figure shows two similar toy cars are pushed to move on the same floor, study the figure then answer the questions below:

1. Which of these two cars is affected by a greater force?

(Give a reason for your answer).

....

....

2. Choose the correct answer:

1. If the two cars were pushed by the same force, so ....

a. car (A) would move for a longer distance than car (B).

b. car (B) would move for a longer distance than car (A).

c. the two cars would move the same distance.

d. the two cars would not move.

2. The two cars during motion are affected by all the following forces, except ....

a. the pushing force.

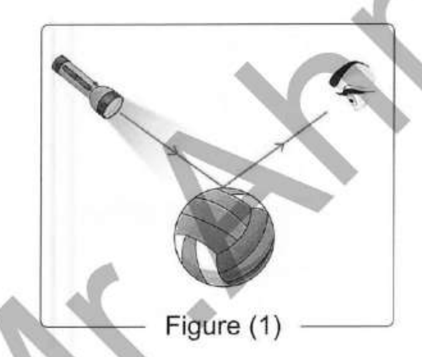
b. the friction force of the air.

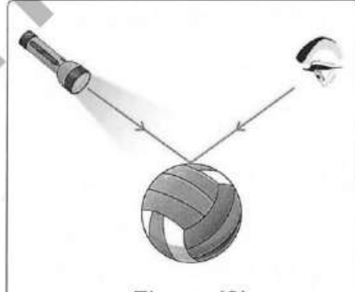
c. the friction force of the floor.

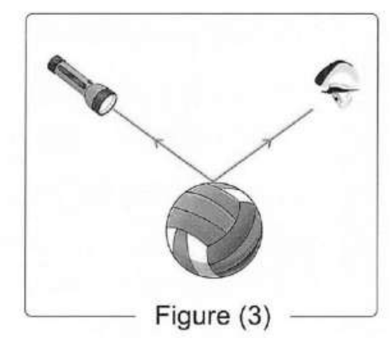
d. the pushing gravity force.

2

Study the following three figures, then put (√) or (X):


Figure (1)


Figure (2)


Figure (3)

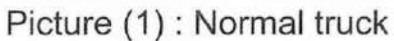
1. Human's eyes can see the ball in figure (3), because the ball emits light. (   )

2. Figure (2) is not correct, because human's eyes don't emit light. (   )

3. Figure (1) is correct, because the light ray of the flashlight bounces off the ball to the human's eyes. (   )

3

Look at the following pictures, then complete the following sentences:



Picture (1) : Normal truck


Picture (2) : Jet airplane

1. The engine of picture (..........) is much powerful than the engine of picture(..........).

2. When the engines of picture (..........) are placed in the picture (..........) it will turn into the Shockwave truck.

3. The engines that are used in picture (..........) are the same engines that are used in the Shockwave truck.

4

Look at the opposite figure, then answer the following questions:

1. In the opposite figure
what happens if we increase the number of fire extinguishers fixed to the cart.

....

....

2. Put (√) or (X):

1. Air released by fire extinguishers moves backward, so the cart moves forward. ( )

2. When we decrease the number of fire extinguishers, the cart moves for a longer distance. ( )

5

Look at the following pictures, then choose if the forces are "Balanced" or "Unbalanced."


1. A book on a table
(Balanced – Unbalanced)


2. A seesaw
(Balanced – Unbalanced)

6

Complete the following sentences using the words below :

(source of light - mirror-like membrane - bounce off)

1. All cats have a .... at the back of their eyes.
2. Any object that gives off its own light is called a ....
3. We can see objects when the light rays .... these objects to our eyes

7

Write the type of force that is used in each of the following situations:



1. ....



2. ....



3. ....



4. ....

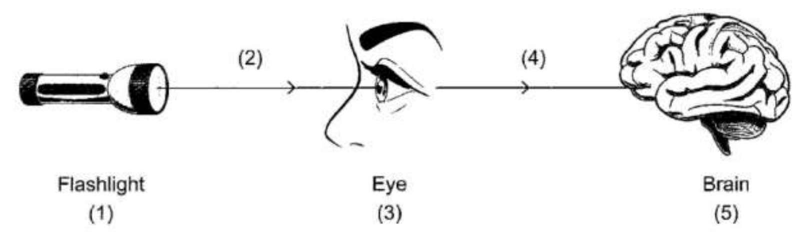
8

Classify the following materials into opaque objects and transparent objects:
"Wood - Air - Water - Metal – Lenses"

Opaque objects	Transparent objects

9

Study the following figure, then put (√) or (X):



1. Number **(5)** represents the sense organ of light. ( )
2. Number **(1)** represents a source of light. ( )
3. Number **(4)** represents a special nerve through which the eye sends information to the brain for processing it. ( )
4. Number **(2)** represents a light ray that travels in straight line to enter the eye. ( )
5. Number **(3)** and **(5)** working together to collect and process different sounds. ( )

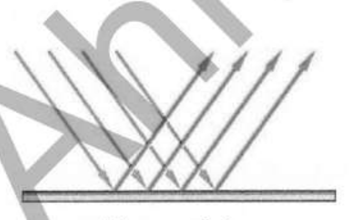
10

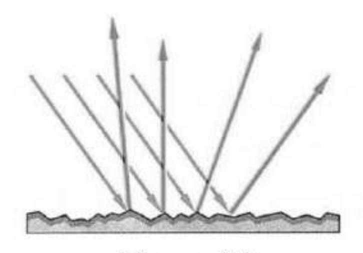
Arrange the following statements to show the correct sequence of how humans see different objects:

(..............) Special nerves in the eyes send messages to the brain.
(..............) The reflected light rays travels in a straight line into the eyes.
(..............) The brain interprets the messages as an image.
(..............) Light rays reflect off objects around us.

11

Look at the following figures, then answer the questions below:


Figure (a)


Figure (b)

1. Complete:

a. The surface in figure (a) is ....

- Because ....

b. The surface in figure (b) is ....

- Because ....

2. Choose:

The surface in figure (a) may be ....

a. plastic. b. wood. c. mirror. d. cloth.

Model Answer

(1) Write the scientific term:

1. Force
2. Push force
3. Pull force
4. Motion
5. Gravity
6. Friction force
7. Friction force
8. Eye
9. Brain
10. Light energy
11. Transparent object
12. Opaque object
13. Rough surface
14. Ears

(2) Choose the right answer:

1. C
2. C
3. D
4. A
5. A
6. C
7. B
8. D
9. B
10. A
11. B
12. D
13. D
14. C
15. D
16. D
17. B
18. C
19. C
20. C
21. D
22. B
23. B
24. A

(3) Put (√) or (X) :

1. (√)
2. (√)
3. (√)
4. (√)
5. (√)
6. (√)
7. (X)
8. (√)
9. (√)
10. (X)
11. (X)
12. (√)
13. (√)
14. (X)
15. (X)
16. (X)
17. (√)
18. (√)
19. (√)
20. (√)
21. (√)

(5) Complete the following sentences:

1. Longer
2. Friction
3. Vision
4. Structural
5. Light
6. Sound – light
7. Light
8. Speed
9. Gravity
10. Push force
11. Opaque – transparent
12. Opaque – light
13. Sight – hearing

(4) Correct the underline

1. Pushing
2. Pulling
3. Unbalanced
4. Motion
5. Opposite
6. Decrease
7. Transparent
8. Smooth
9. Light
10. Sun
11. Light
12. Brain

(6) Give reasons for:

1. To warn off from predators or to attract a mate.
2. Because it has a mirror-like membrane at the back of its eyes which bounces off the light.
3. Because it gives off its own light.
4. Because the wall applied a force to the car with the same amount of the force that pushes the car toward the wall.
5. To help slow down the Shockwave truck quickly.
6. Due to the pulling force of the gravity down toward the Earth.
7. Because the opaque body doesn't allow light to pass through.
8. Because the glass cup is a transparent material which allows light to pass through.
9. Because the mirror is smoother than the painted surface.

(7) What happens if ... ?

1. The eyes send a message to my brain to stop walking and not cross the road.
2. Its speed decreases gradually until it stops.
3. The ball that is affected by the greater force will move a longer distance than the other ball.
4. It cannot see clearly and hunt at night.
5. It seems to be dark and we can't see it.
6. It starts to move on the ground.
7. The Shockwave truck starts to stop gradually.
8. The rope will not move because the two forces are balanced.
9. It will fall down on the ground due to the pulling force of gravity.
10. The shadow of the wood sheet is formed on the wall, because light rays cannot pass through it.
11. Light passes through the glass window.
12. Light rays are reflected in different directions.

(8) Choose from column (B) what suits it in column (A) :

1

1- b 2- c 3- a

2

1- a 2- c 3- d

(9) TRY TO ANSWER:

1

(1) A – because it moves for longer distance

(2) 1. c 2. d

2

1. (X)
2. (√)
3. (√)

3

(1) 2 – 1
(2) 2 – 1
(3) 2

4

(1) It will move by more speed and longer distance.

(2)

1. (√)
2. (X)

5

Balanced – Unbalanced

6

1. Mirror like membrane
2. Source of light
3. Bounce off

7

1. Push
2. Pull
3. Pull
4. Push

8

1. Opaque objects : wood – metal
2. Transparent object : air – water – lenses

9

1. (X)
2. (√)
3. (√)
4. (√)
5. (X)

10

(3) - (2) - (4) - (1)

11

1. (a) smooth - because it reflects light in straight line
   (b) rough - because it reflects light in different direction
2. c